

Amendments to the Claims:

Please amend the claims as indicated.

1. (Currently Amended) A sequence management apparatus for backing up data across a plurality of clients, the apparatus comprising:

a storage device storing executable code;

a processor executing the executable code, the executable code comprising

a client request module configured to receiving data to be backed up from a source client, the data comprising a plurality of backup data packets;

a sequence module configured to generating a non-transparent sequence of a plurality of target clients, wherein the non-transparent sequence comprises packet identifiers for each of the plurality of backup data packets arranged in an order that the plurality of backup data packets are stored from the source client to on the plurality of target clients, wherein and the non-transparent sequence is unique and exclusively accessible to the sequence management apparatus a global sequence manager;

a packet storage module configured to storing the data on the plurality of target clients according to the non-transparent sequence, wherein the source client and the plurality of target clients are organized in a grid computing system, wherein each physical distance between each target client storing backup data packets is not less than a specified client packet proximity minimum distance packet proximity-parameter and not more than a specified client packet proximity maximum distance packet proximity-parameter and each physical distance between the source client and each target client storing backup data packets is not less than a specified client backup proximity minimum distance parameter and not more than a specified client backup proximity maximum distance parameter, the specified client packet proximity minimum distance packet proximity-parameter, and the specified client packet proximity maximum distance packet proximity parameter, the specified client backup proximity minimum distance parameter,

and the specified client backup proximity maximum distance parameter each specifying a distance value measured in a unit selected from miles and kilometers;
a packet retrieval module ~~configured to retrieving~~ the plurality of backup data packets backed up on the plurality of target clients; and
a data assembly module ~~configured to assembling~~ the retrieved plurality of backup data packets in the non-transparent sequence of the packet identifiers.

2. (Currently Amended) The apparatus of claim 1, ~~wherein the executable code further comprising a global profile management module is configured to managing~~ a metadata file, the metadata file descriptive of the data backed up on the plurality of target clients.

3. (Previously Presented) The apparatus of claim 2, wherein the metadata file is selected from the group consisting of a global client profile, a source client profile, a source data record, a target data record, a data assembly record, and a global backup log.

4. (Currently Amended) The apparatus of claim 2, ~~wherein the global profile management module is further configured to using~~ a unique data identifier corresponding to the data to map the data to the source client, the unique data identifier identifying original, non-backup data and indicating a uniqueness of the data as compared to other data.

5. (Currently Amended) The apparatus of claim ~~534~~, ~~wherein the global profile management module is further configured to mapping~~ the unique data identifier to a second source client on which an identical copy of the data is stored.

6. (Canceled)

7. (Currently Amended) The apparatus of claim 1, ~~wherein the packet retrieval module is further configured to retrieving~~ the at least a portion of the data backed up on one of

the plurality of the target clients according to the non-transparent sequence generated by the sequence module.

8. (Canceled)

9. (Currently Amended) The apparatus of claim 1, ~~wherein~~ the packet storage module is further ~~configured to separate~~configured to separate the data into the plurality of backup data packets ~~and to store the backup data packets on the plurality of target clients.~~

10. (Currently Amended) The apparatus of claim 9, the executable code further comprising a compression module ~~configured to compress~~configured to compress the data within the backup data packets prior to storing the backup data packets on the plurality of target clients.

11. (Currently Amended) The apparatus of claim 9, the executable code further comprising an encryption module ~~configured to encrypt~~configured to encrypt the data within the backup data packets prior to storing the backup data packets on the plurality of target clients.

12. (Currently Amended) The apparatus of claim 9, the executable code further comprising a redundancy module ~~configured to create~~configured to create a redundant backup data packet of at least one of the backup data packets prior to storing the backup data packets on the plurality of target clients.

13. (Currently Amended) The apparatus of claim 12, ~~wherein~~ the packet storage module is further ~~configured to store~~configured to store the redundant backup data packet on one of the plurality of target clients according to the non-transparent sequence.

14. (Canceled)

15. (Canceled)

16. (Currently Amended) A client for backing up data across a plurality of target clients in conjunction with a sequence management apparatus, the client comprising:

a network interface ~~configured to communicating~~ with the sequence management apparatus;

a storage ~~configured to defining~~ an allocated storage; and

a storage device storing executable code;

a processor executing the executable code, the executable code comprising

a client backup manager apparatus ~~configured to managing~~ a backup operation backing up data comprising a plurality of backup data packets from a source client across a grid computing system to the plurality of target clients using a unique data identifier and a non-transparent sequence, wherein the non-transparent sequence comprises packet identifiers for each of the plurality of backup data packets arranged in an order that thea plurality of backup data packets are stored on the plurality of target clients and the non-transparent sequence is unique and exclusively accessible to the sequence management apparatus~~a global sequence manager~~ and the unique data identifier identifies original, non-backup data, wherein the plurality of target clients are organized in the grid computing system, wherein each physical distance between each target client storing backup data packets is not less than a specified client packet proximity minimum distance ~~packet proximity-parameter~~ and not more than a specified client packet proximity maximum distance ~~packet proximity-parameter~~ and each physical distance between the source client and each target client storing backup data packets is not less than a specified client backup proximity minimum distance parameter and not more than a specified client backup proximity maximum distance parameter, the specified client packet proximity minimum distance ~~packet proximity-parameter,~~ and the specified client packet proximity maximum distance ~~packet proximity~~

parameter, the specified client backup proximity minimum distance parameter, and the specified client backup proximity maximum distance parameter each specifying a distance value measured in a unit selected from miles and kilometers, the client backup manager further retrieving the plurality of backup data packets backed up on the plurality of clients and assembling the retrieved plurality of backup data packets in the non-transparent sequence of the packet identifiers.

17. (Currently Amended) The client of claim 16, wherein ~~the first client is a source client configured to initiate~~ the backup operation and generates the unique data identifier for the data.

18. (Canceled)

19. (Currently Amended) A system for backing up data across a plurality of clients, the system comprising:

a network communications channel;

a source client connected to the network communications channel and ~~configured to initiate~~ a data backup operation for data comprising a plurality of backup data packets;

a plurality of target clients connected to the network communications channel ~~and configured to store at least a portion of the data;~~ and

a storage device storing executable code;

a processor executing the executable code, the executable code comprising

a global sequence manager connected to the network communications channel ~~and configured to store~~ the data from the source client to the plurality of target clients according to a non-transparent sequence ~~of the plurality of target clients, wherein the non-transparent sequence comprises~~ packet identifiers for each of the plurality of backup data packets arranged in an order

that ~~the~~ a plurality of backup data packets are stored on the plurality of target clients, ~~wherein~~ and the non-transparent sequence is unique and exclusively accessible to the global sequence manager and the source client and the plurality of target clients are organized in a grid computing system, wherein each physical distance between each target client ~~storing backup data packets~~ is not less than a specified client packet proximity minimum distance ~~packet proximity~~ parameter and not more than a specified client packet proximity maximum distance ~~packet proximity~~ parameter and each physical distance between the source client and each target client storing backup data packets is not less than a specified client backup proximity minimum distance parameter and not more than a specified client backup proximity maximum distance parameter, the specified client packet proximity minimum distance ~~packet proximity~~ parameter, and the specified client packet proximity maximum distance ~~packet proximity~~ parameter, the specified client backup proximity minimum distance parameter, and the specified client backup proximity maximum distance parameter each specifying a distance value measured in a unit selected from miles and kilometers, the global sequence manager further retrieving the plurality of backup data packets backed up on the plurality of target clients and assembling the retrieved plurality of backup data packets in the non-transparent sequence of the packet identifiers.

20. (Currently Amended) The system of claim 19, ~~wherein~~ the global sequence manager ~~is further configured to storing~~ is further configured to store a single copy of the data corresponding to a unique data identifier and ~~to mapping~~ to map the single copy of the data to the source client on which the data is stored and to a second source client on which an identical copy of the data is stored, the unique data identifier identifying original, non-backup data and indicating a uniqueness of the data as compared to other data.

21. (Canceled)

22. (Currently Amended) The system of claim 19, ~~wherein the global sequence manager and subscription manager are further configured to tracking~~ a source storage allocation parameter of the source client.

23. (Currently Amended) The system of claim 19, ~~wherein the global sequence manager and subscription manager are further configured to tracking~~ a target storage allocation parameter of each of the plurality of target clients.

24. (Currently Amended) The system of claim 19, ~~wherein the global sequence manager and subscription manager are configured to tracking~~ a resource allocation parameter.

25. (Original) The system of claim 24, wherein the resource allocation parameter is selected from the group consisting of a network allocation parameter, a client processor parameter, and a client bandwidth parameter.

26-29. (Canceled)

30. (Currently Amended) A method for backing up data across a plurality of target clients, the method comprising:

receiving, by use of a processor, data to be backed up from a source client, the data comprising a plurality of backup data packets;

generating a non-transparent sequence comprising packet identifiers for each of the plurality of backup data packets arranged in an order that the plurality of backup data packets are stored from the source client to the plurality of target clients, wherein the non-transparent sequence is unique and exclusively accessible to a global sequence manager of a plurality of target clients;

storing the data on the plurality of target clients according to the non-transparent sequence, wherein ~~the non-transparent sequence comprises an order that a plurality of backup data packets are stored on the plurality of target clients and the non-transparent sequence is unique and exclusively accessible to a global sequence manager and~~ the source client and the plurality of target clients are organized in a grid computing system, wherein each physical distance between each target client storing backup data packets is not less than a specified client packet proximity minimum distance ~~packet proximity~~-parameter and not more than a specified client packet proximity maximum distance ~~packet proximity~~ parameter and each physical distance between the source client and each target client storing backup data packets is not less than a specified client backup proximity minimum distance parameter and not more than a specified client backup proximity maximum distance parameter, the specified client packet proximity minimum distance ~~packet proximity~~ parameter, and the specified client packet proximity maximum distance ~~packet proximity~~-parameter, the specified client backup proximity minimum distance parameter, and the specified client backup proximity maximum distance parameter each specifying a distance value measured in a unit selected from miles and kilometers;

retrieving the plurality of backup data packets backed up on the plurality of target clients; and

assembling the retrieved plurality of backup data packets in the non-transparent sequence of the packet identifiers.

31. (Previously Presented) The method of claim 30, further comprising managing a metadata file descriptive of the data backed up on the plurality of target clients, the metadata file comprising one of a global client profile, a source client profile, a source data record, a target data record, a data assembly record, and a global backup log.

32. (Currently Amended) The method of claim 30, further comprising separating the data into the plurality of backup data packets and ~~storing the backup data packets on the plurality of target clients.~~

33. (Previously Presented) The method of claim 30, further comprising using a unique data identifier corresponding to the data to map the data to the source client, the unique data identifier identifying original, non-backup data and indicating a uniqueness of the data as compared to other data.

34. (Canceled)

35. (Original) The method of claim 30, further comprising tracking a resource allocation parameter, wherein the resource allocation parameter is one of a source storage allocation parameter, a target storage allocation parameter, a network allocation parameter, a client processor parameter, and a client bandwidth parameter.

36. (Currently Amended) A method for backing up data across a plurality of clients, the method comprising:

requesting, by use of a processor, data to be backed up from a source client;

receiving data to be backed up from a source client;

separating the data into a plurality of backup data packets;

generating a non-transparent sequence of a plurality of target clients, wherein the non-transparent sequence comprises packet identifiers for each of the plurality of backup data packets arranged in an order that the plurality of backup data packets are stored from the source client to on the plurality of target clients, wherein and the non-transparent sequence is unique and exclusively accessible to a global sequence manager;

storing the backup data packets on the plurality of target clients according to the non-transparent sequence, wherein the source client and the plurality of target clients are organized in a grid computing system, wherein each physical distance between each target client storing backup data packets is not less than a specified client packet proximity minimum distance ~~packet-proximity-parameter~~ and not more than a specified client packet proximity maximum distance ~~packet proximity-parameter~~ and each physical distance between the source client and each target client storing backup data packets is not less than a specified client backup proximity minimum distance parameter and not more than a specified client backup proximity maximum distance parameter, the specified client packet proximity minimum distance ~~packet-proximity-parameter~~, and the specified client packet proximity maximum distance ~~packet-proximity-parameter~~, the specified client backup proximity minimum distance parameter, and the specified client backup proximity maximum distance parameter each specifying a distance value measured in a unit selected from miles and kilometers;

using a unique data identifier corresponding to the data to map the data to the source client;

managing a metadata file descriptive of the data backed up on the plurality of target clients;

tracking a resource allocation parameter, wherein the resource allocation parameter is one of a source storage allocation parameter, a target storage allocation parameter, a network allocation parameter, a client processor parameter, and a client bandwidth parameter;

managing a contractual subscription of the source client and the plurality of target clients;

retrieving the plurality of backup data packets backed up on the plurality of target clients; and

assembling the retrieved plurality of backup data packets in the non-transparent sequence of the packet identifiers.

37. (Currently Amended) A programmable hardware device storing executable code that is executed on a processor to carry out a method for backing up data across a plurality of clients, the method comprising:

receiving data to be backed up from a source client, the data comprising a plurality of backup data packets;

generating a non-transparent sequence ~~of a plurality of target clients;~~
~~wherein the non-transparent sequence~~ comprisinges packet identifiers for each of the plurality of backup data packets arranged in an order that a plurality of backup data packets are stored from the source client toon the plurality of target clients,
~~wherein and~~ the non-transparent sequence is unique and exclusively accessible to a global sequence manager;

storing the data on the plurality of target clients according to the non-transparent sequence, wherein the source client and the plurality of target clients are organized in a grid computing system, wherein each physical distance between each target client storing backup data packets is not less than a specified client packet proximity minimum distance ~~packet proximity~~-parameter and not more than a specified client packet proximity maximum distance ~~packet proximity~~ parameter and each physical distance between the source client and each target client storing backup data packets is not less than a specified client backup proximity minimum distance parameter and not more than a specified client backup proximity maximum distance parameter, the specified client packet proximity minimum distance ~~packet proximity~~-parameter, and the specified client packet proximity maximum distance ~~packet proximity~~-parameter, the specified client backup proximity minimum distance parameter, and the specified client

backup proximity maximum distance parameter each specifying a distance value measured in a unit selected from miles and kilometers;

retrieving the plurality of backup data packets backed up on the plurality of target clients; and

assembling the retrieved plurality of backup data packets in the non-transparent sequence of the packet identifiers.

38. (Previously Presented) The programmable hardware device of claim 37, wherein the method further comprises managing a metadata file descriptive of the data backed up on the plurality of target clients, the metadata file comprising one of a global client profile, a source client profile, a source data record, a target data record, a data assembly record, and a global backup log.

39. (Previously Presented) The programmable hardware device of claim 37, wherein the method further comprises using a unique data identifier corresponding to the data to map the data to the source client, the unique data identifier identifying original, non-backup data and indicating a uniqueness of the data as compared to other data.

40. (Canceled)

41. (Canceled)

42. (Currently Amended) The programmable hardware device of claim 37, wherein the method further comprises separating the data into the plurality of backup data packets and storing the backup data packets on the plurality of target clients.

43. (Canceled)

44. (Previously Presented) The programmable hardware device of claim 37, wherein the method further comprises modifying the data prior to storing the data on the plurality of target clients, wherein modifying the data comprises one of compressing, encrypting, and duplicating at least a portion of the data.

45. (Canceled)

46. (Currently Amended) An apparatus for backing up data across a plurality of clients, the apparatus comprising:

a storage device storing executable code;

a processor executing the executable code, the executable code comprising

means for receiving data to be backed up from a source client, the data comprising a plurality of backup data packets mapped to the source client with a unique data identifier;

means for generating a non-transparent sequence of a plurality of target clients, wherein the non-transparent sequence comprises packet identifiers for each of the plurality of backup data packets arranged in an order that the plurality of backup data packets are stored from the source client to on the plurality of target clients, wherein and the non-transparent sequence is unique and exclusively accessible to the apparatus a global sequence manager;

means for storing the data on the plurality of target clients according to the non-transparent sequence, wherein the source client and the plurality of target clients are organized in a grid computing system, wherein each physical distance between each target client storing backup data packets is not less than a specified client packet proximity minimum distance packet proximity parameter and not more than a specified client packet proximity maximum distance packet proximity parameter and each physical distance between the source client and each target client storing backup data packets is not less than a specified client backup

proximity minimum distance parameter and not more than a specified client backup proximity maximum distance parameter, the specified client packet proximity minimum distance ~~packet proximity~~ parameter, and the specified client packet proximity maximum distance ~~packet proximity~~ parameter, the specified client backup proximity minimum distance parameter, and the specified client backup proximity maximum distance parameter each specifying a distance value measured in a unit selected from miles and kilometers;

means for retrieving the plurality of backup data packets backed up on the plurality of target clients; and

means for assembling the retrieved plurality of backup data packets in the non-transparent sequence of the packet identifiers.

47. (Currently Amended) The client of claim 17, wherein the client backup manager further maps the data to source client using ~~the~~ a unique data identifier corresponding to the data, the unique data identifier identifying original, non-backup data and indicating a uniqueness of the data as compared to other data, and the client backup manager further creates a redundant backup data packet for each backup data packets prior to storing the backup data packets on the plurality of target clients and stores the redundant backup data packet on one of the plurality of target clients according to the non-transparent sequence.

48. (Previously Presented) The system of claim 19, wherein the global sequence manager further creates a redundant backup data packet for each backup data packets prior to storing the backup data packets on the plurality of target clients and stores the redundant backup data packet on one of the plurality of target clients according to the non-transparent sequence.

49. (Previously Presented) The method of claim 30, the method further comprising creating a redundant backup data packet for each backup data packets prior to storing the backup

data packets on the plurality of target clients and storing the redundant backup data packet on one of the plurality of target clients according to the non-transparent sequence.

50. (Currently Amended) The method of claim 36, the method further comprising:

mapping the data to source client using thea unique data identifier corresponding to the

data, the unique data identifier identifying original, non-backup data and

indicating a uniqueness of the data as compared to other data; and

creating a redundant backup data packet for each backup data packets prior to storing the

backup data packets on the plurality of target clients and storing the redundant

backup data packet on one of the plurality of target clients according to the non-transparent sequence.

51. (Previously Presented) The method of claim 37, the method further comprising creating a redundant backup data packet for each backup data packets prior to storing the backup data packets on the plurality of target clients and storing the redundant backup data packet on one of the plurality of target clients according to the non-transparent sequence.

52. (Currently Amended) The apparatus of claim 46, wherein the storing means further mapping the data to source client using thea unique data identifier corresponding to the data, the unique data identifier identifying original, non-backup data and indicating a uniqueness of the data as compared to other data, and the storing means further creates a redundant backup data packet for each backup data packets prior to storing the backup data packets on the plurality of target clients and stores the redundant backup data packet on one of the plurality of target clients according to the non-transparent sequence.

53. (New) The apparatus of claim 4, the packet storage module creating a source client profile for the data, the source client profile comprising the unique data identifier, a data source

location, a data packet compression, a data packet redundancy, a data packet encryption, a data backup proximity comprising the specified minimum distance packet proximity parameter and the maximum distance packet proximity parameter, a data synchronization parameter indicating how often each target client should be synchronized with the source client, and the non-transparent sequence, the packet storage module further creating a source data record for each packet, the source data record comprising the unique data identifier, the packet identifier for the packet, and at least one target identifier for each target client storing the packet.

54. (New) The client of claim 17, the client backup manager apparatus creating a source client profile for the data, the source client profile comprising the unique data identifier, a data source location, a data packet compression, a data packet redundancy, a data packet encryption, a data backup proximity comprising the specified minimum distance packet proximity parameter and the maximum distance packet proximity parameter, a data synchronization parameter indicating how often each target client should be synchronized with the source client, and the non-transparent sequence, the packet storage module further creating a source data record for each packet, the source data record comprising the unique data identifier, the packet identifier for the packet, and at least one target identifier for each target client storing the packet.

55. (New) The system of claim 20, the global sequence manager creating a source client profile for the data, the source client profile comprising the unique data identifier, a data source location, a data packet compression, a data packet redundancy, a data packet encryption, a data backup proximity comprising the specified minimum distance packet proximity parameter and the maximum distance packet proximity parameter, a data synchronization parameter indicating how often each target client should be synchronized with the source client, and the non-transparent sequence, the packet storage module further creating a source data record for each packet, the source data record comprising the unique data identifier, the packet identifier for the packet, and at least one target identifier for each target client storing the packet.

56. (New) The method of claim 33, further comprising creating a source client profile for the data, the source client profile comprising the unique data identifier, a data source location, a data packet compression, a data packet redundancy, a data packet encryption, a data backup proximity comprising the specified minimum distance packet proximity parameter and the maximum distance packet proximity parameter, a data synchronization parameter indicating how often each target client should be synchronized with the source client, and the non-transparent sequence, the packet storage module further creating a source data record for each packet, the source data record comprising the unique data identifier, the packet identifier for the packet, and at least one target identifier for each target client storing the packet.

57. (New) The method of claim 36, further comprising creating a source client profile for the data, the source client profile comprising the unique data identifier, a data source location, a data packet compression, a data packet redundancy, a data packet encryption, a data backup proximity comprising the specified minimum distance packet proximity parameter and the maximum distance packet proximity parameter, a data synchronization parameter indicating how often each target client should be synchronized with the source client, and the non-transparent sequence, the packet storage module further creating a source data record for each packet, the source data record comprising the unique data identifier, the packet identifier for the packet, and at least one target identifier for each target client storing the packet.

58. (New) The programmable hardware device of claim 39, the method further comprising creating a source client profile for the data, the source client profile comprising the unique data identifier, a data source location, a data packet compression, a data packet redundancy, a data packet encryption, a data backup proximity comprising the specified minimum distance packet proximity parameter and the maximum distance packet proximity parameter, a data synchronization parameter indicating how often each target client should be synchronized with the source client, and the non-transparent sequence, the packet storage module further creating a source data record for each packet, the source data record comprising the

unique data identifier, the packet identifier for the packet, and at least one target identifier for each target client storing the packet.

59. (New) The apparatus of claim 46, the means for storing data creating a source client profile for the data, the source client profile comprising the unique data identifier, a data source location, a data packet compression, a data packet redundancy, a data packet encryption, a data backup proximity comprising the specified minimum distance packet proximity parameter and the maximum distance packet proximity parameter, a data synchronization parameter indicating how often each target client should be synchronized with the source client, and the non-transparent sequence, the packet storage module further creating a source data record for each packet, the source data record comprising the unique data identifier, the packet identifier for the packet, and at least one target identifier for each target client storing the packet.